The listing of claims presented below replaces all prior versions and listing of claims in the application.

Listing of claims:

Claim 1(previously presented) A method of treatment of failure of ovulation in a human patient by stimulation of the hypothalamic-pituitary-gonadal axis which comprises at the beginning of the follicular phase administering to a patient suffering from such a condition an effective amount of an acetylcholinesterase inhibitor having a central effect and a duration of action of from 1 to 100 hours, said acetylcholinesterase inhibitor being selected from the group consisting of donepezil, rivastigmine, galantamine, lycoramine and the analogs of galantamine and lycoramine and thereafter determining whether a normal follicular response has been obtained and deciding on further administration of said compound based on the results of said determination.

2. (Original) A method as claimed in claim l, wherein said duration of action is from 1.5 to 72 hours.

3 (canceled)

4 (Withdrawn) A method as claimed in claim 1, wherein said defect is an unexplained infertility.

5. (Withdrawn) A method as claimed in claim 1, wherein said condition is a luteal phase defect.

6.(Withdrawn) A method as claimed in claim 1, wherein said defect is hypogonadotrophic hypogonadism.

7. (Withdrawn)A method as claimed in claim 1, wherein said condition is

aesthenozoospermia.

8. (Withdrawn) A method as claimed in claim 1, wherein said condition is oligozoospermia.

9. (Withdrawn) A method as claimed in claim 1, wherein said condition is delayed onset of puberty.

10. (Withdrawn) A method as claimed in claim 1, wherein said condition is cryptorchidism.

11. (Canceled)

12. (Currently amended) A method as claimed in claim 1, wherein said acetylcholinesterase inhibitor is selected from the group consisting of galanthamine, lycoramine and analogs of said compounds wherein at least one of the methoxy, hydroxy or ~~methyl~~ N-methyl groups of the galanthamine or lycoramine is replaced as follows:

the methoxy group by another alkoxy group of from one to six carbon atoms, a hydroxy group, hydrogen, an alkanoyloxy group, a benzoyloxy or substituted benzoyloxy group, a carbonate group or a carbamate group;

the hydroxy group by an alkoxy group of from one to six carbon atoms, hydrogen, an alkanoyloxy group, a benzoyloxy or substituted benzoyloxy group, a carbonate group or a carbamate group;

the N-methyl group by hydrogen, alkyl, benzyl, cyclopropylmethyl or a substituted or unsubstituted benzoyloxy group.

13. (Previously presented) A method of treatment as claimed in claim 1, wherein said

acetylcholinesterase inhibitor is selected from the group consisting of galanthamine, lycoramine and analogs thereof wherein the methoxy group of such compounds is replaced by a hydrogen, hydroxy or alkoxy group of from two to six carbon atoms or an acyloxy group of from one to seven carbon atoms.

14. (Previously presented) A method of treatment as claimed in claim 1, wherein said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine or lycoramine wherein the methoxy group thereof is replaced by a mono or dialkyl carbamate or carbonate group wherein the alkyl groups contain from 1 to 8 carbon atoms.

15. (Original) A method of treatment as claimed in claim 14, wherein the alkyl group or groups of said carbonate or carbamate groups comprise from 4 to 6 carbon atoms.

16 (Original) A method of treatment as claimed in claim 15, wherein said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine or lycoramine wherein the hydroxy group thereof is replaced by a mono or dialkyl carbamate or carbonate group wherein the alkyl groups contain from 1 to 8 carbon atoms.

17 (Original) A method of treatment as claimed in claim 16, wherein the alkyl group or groups of said carbonate or carbamate groups comprise from 4 to 6 carbon atoms.

18. (Previously presented) A method of treatment as claimed in claim 1, wherein said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine or lycoramine wherein the methoxy group thereof is replaced by an aryl carbamate or carbonate group wherein said aryl group is selected from phenyl, naphthyl, substituted phenyl and substituted naphthyl groups wherein said substituent is selected from alkyl and alkoxy groups of from 1 to 6 carbon atoms, trifluoromethyl groups and halo groups.

19. (Previously presented) A method of treatment as claimed in claim 1, wherein said

acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine and lycoramine wherein the hydroxy group thereof is replaced by an aryl carbamate or carbonate group wherein said aryl group is selected from phenyl, naphthyl, substituted phenyl and substituted naphthyl groups wherein said substituent is selected from alkyl and alkoxy groups of from 1 to 6 carbon atoms, Trifluoro methyl groups and halo groups.

20. (Previously presented) A method of treatment as claimed in claim 1, wherein said acetylcholinesterase inhibitor is selected from the group consisting of galanthamine, lycoramine and analogs thereof wherein the hydroxy group of such compounds is replaced by a hydrogen or alkoxy group of from one to six carbon atoms or an acyloxy group of from one to seven carbon atoms.

21. (Previously presented) A method of treatment as claimed in claim 1 wherein said acetylcholinesterase inhibitor is galanthamine.

22. (Previously presented) A method of treatment as claimed in claim 1 wherein said acetylcholinesterase inhibitor is rivastigmine.

23. (Cancelled)

24. (Cancelled)